

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-40025
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME ---
2. NAME OF OPERATOR WEXPRO COMPANY		7. UNIT AGREEMENT NAME NONE
3. ADDRESS OF OPERATOR P.O. Box 1129, Rock Springs, Wyo. 82901		8. FARM OR LEASE NAME Bug
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 2400' FSL, 407 FEL, NE 1/4 SE 1/4  At proposed prod. zone		9. WELL NO. 1
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 15.5 MILES SOUTHWEST OF DOVE CREEK, COLORADO		10. FIELD AND POOL, OR WILDCAT WILDCAT
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 407' FROM LEASE LINE NO DRILLING UNIT	16. NO. OF ACRES IN LEASE 1920 ACRES	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 12 - 36S. - 25E. SCB&M
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, HESS CORP. OR APPLIED FOR, ON THIS LEASE, FT. CONNELLY FED. 1	19. PROPOSED DEPTH 6350	12. COUNTY OR PARISH SAN JUAN
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6573		13. STATE UTAH
22. APPROX. DATE WORK WILL START* Oct. 10, 1979		

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36	600	325 SACK REG. G W/3% CACL.
8-3/4"	5-1/2"	17	6350	TO BE DETERMINED FROM CALIPER LOGS

WEXPRO COMPANY PROPOSED TO DRILL THE SUBJECT WELL TO A TOTAL DEPTH OF 6350 FEET.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

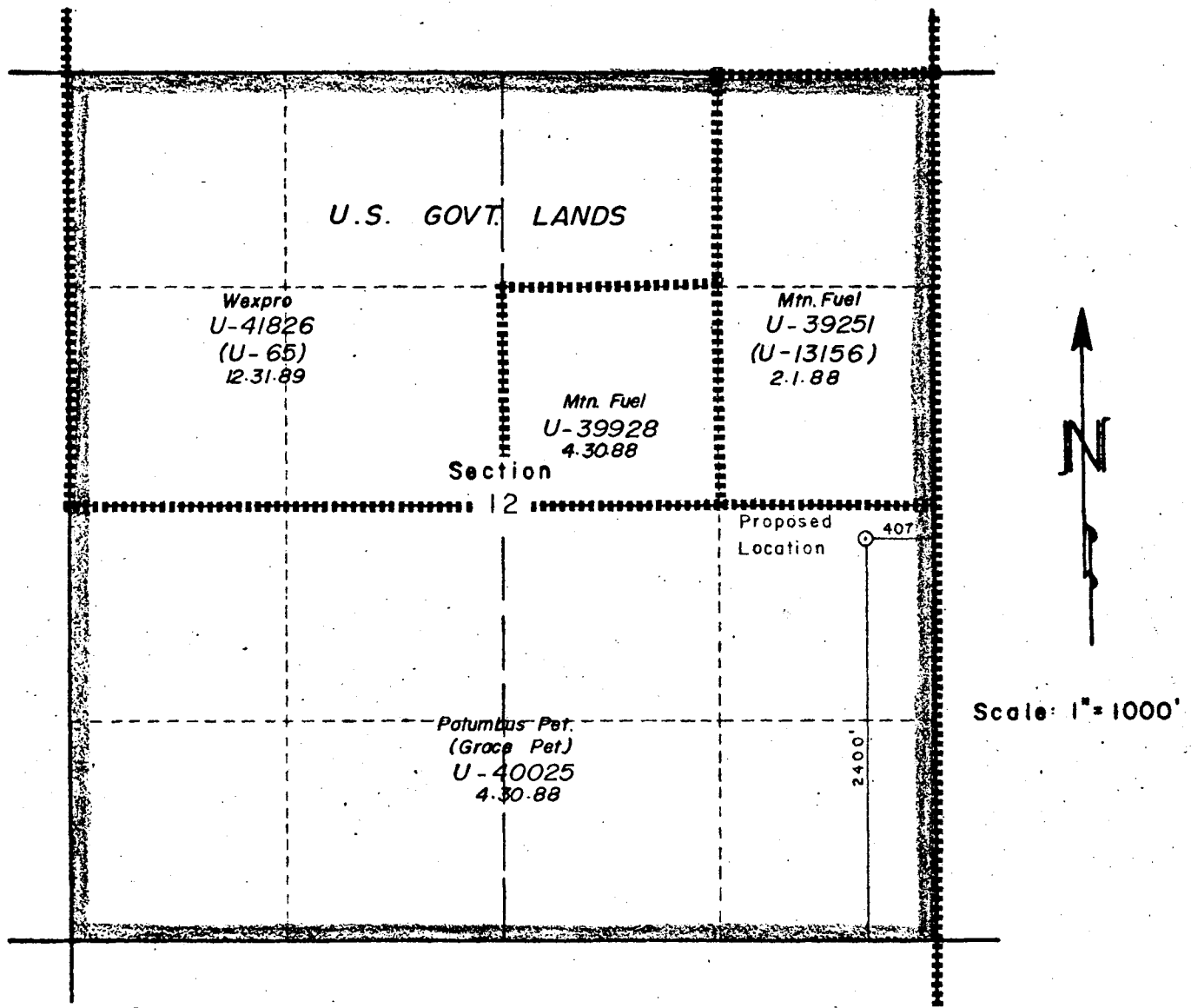
24. SIGNED Stanley M. Fabian WEXPRO COMPANY  
FIELD ENGR. SUPERVISOR  
TITLE \_\_\_\_\_ DATE 9/10/79

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side



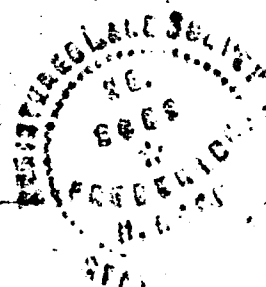
**WELL LOCATION: WEXPRO CO., BUG WELL NO. 1**

**U.S. GOVT. LANDS**

Located 2400 feet North of the South line and 407 feet West of the East line of Section 12,  
 NE 1/4 SE 1/4, SEC. 12  
 Township 36 South Range 25 East Salt Lake Base & Meridian  
 San Juan Co., Utah  
 Existing ground elevation determined at 6573 feet based on USGS datum

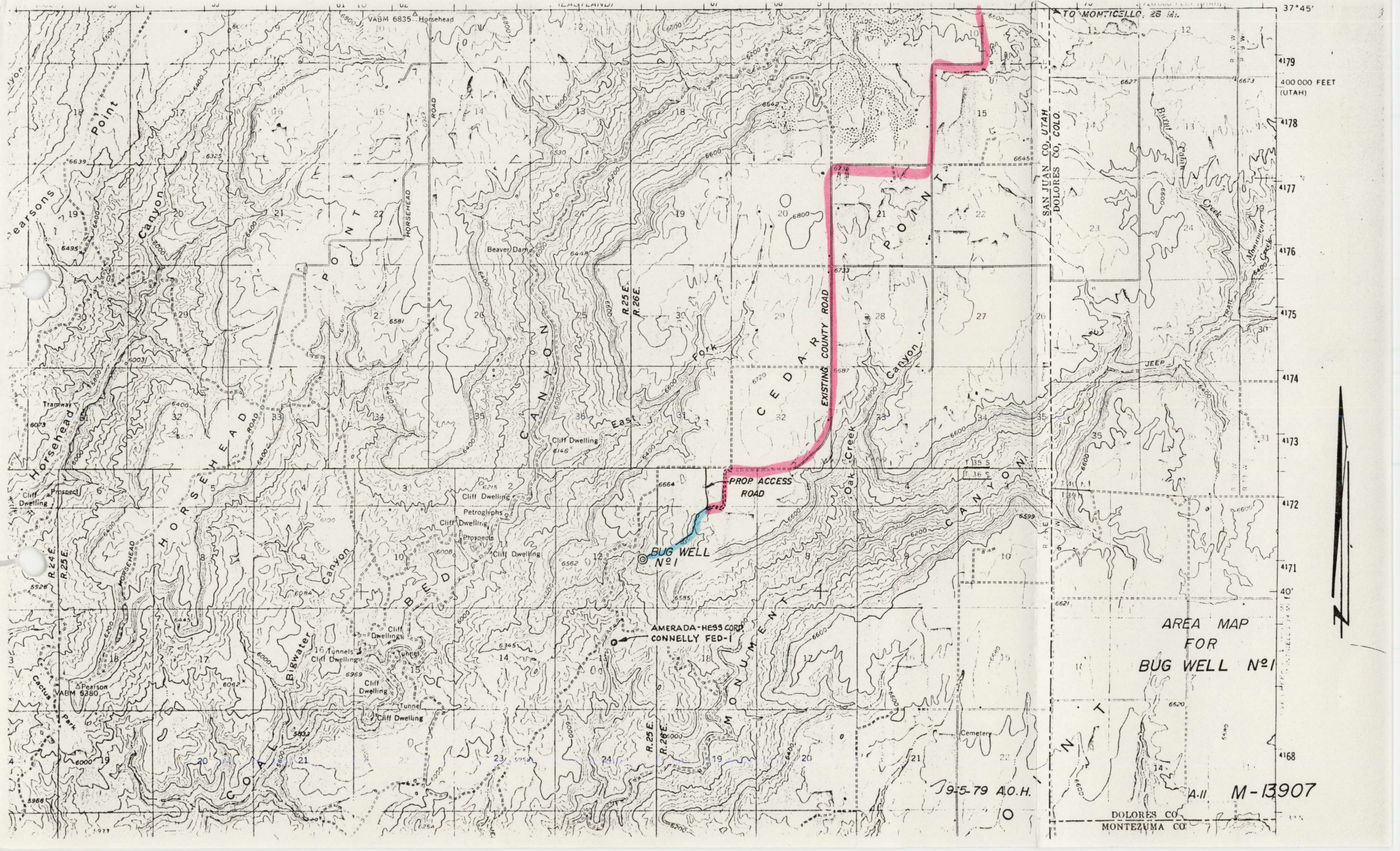
I hereby certify the above plat represents a survey made under my supervision and that it is accurate to the best of my knowledge and belief

FREDERICK H. REED  
 Registered Land Surveyor



WEXPRO CO. Rock Springs, Wyo.	
WELL LOCATION PLAT Bug Well No. 1 Sec. 12, T. 36 S., R. 25 E. San Juan Co., Utah N-13904	
CLARK - REED & ASSOC. Durango, Colorado	DATE: AUG. 31, 1979 FILE NO: 79060 A-11





4179  
400 000 FEET  
(UTAH)

4178

4177

4176

4175

4174

4173

4172

4171

40'

4168

AREA MAP  
FOR  
BUG WELL No. 1

19-5-79 A.O.H.

A-11 M-13907

DOLORES CO.  
MONTEZUMA CO.



WEXPRO COMPANY  
BUG WELL NO. 1  
LEASE NO. U-40025  
NE 1/4 SE 1/4 Section 12, T.36S., R.25E.  
San Juan County, Utah  
10-Point Plan

1. The surface formation is Morrison.
2. Estimated tops of important geological markers are:

Morrison	Surface	Entrada	1,010'
Carmel	1,160'	Navajo	1,210'
Wingate	1,605'	Chinle	1,910'
Shinarump	2,620'	Moenkopi	2,710'
Cutler	2,860'	Honaker Trail	4,610'
Paradox	5,285'	Upper Ismay	5,790'
Base 2nd Shale	5,960'	Lower Ismay	6,040'
"B" Zone	6,160'	Desert Creek	6,215'
Lower Zone	6,265'	Paradox Salt	6,345'
Total Depth:	6,350' or 5' into the Salt		

Objective Reservoir: Upper Ismay (Lower Zone) 5,960'  
Desert Creek (Lower Zone) 6,265'

3. Estimated depths of anticipated water, oil, gas or other mineral bearing formations expected:
  - A. No water flows expected.
  - B. Oil or gas expected in objective reservoirs (Upper Ismay 5,960' and Desert Creek 6,265'. Also, the Lower Ismay may be productive at 6,140').
  - C. No mineral bearing formations anticipated.
4. Casing Program:

<u>Proposed</u>	<u>Footage</u>	<u>Size</u>	<u>Grade</u>	<u>Weight</u>	<u>Condition</u>	<u>Thread</u>
Surface	600'	9-5/8"	K-55	36#	New	8rd ST&C
Production	6350'	5-1/2"	K-55	17#	New	8rd LT&C

Cement Program:

Surface - 325 sacks regular type "G" cement treated with 5% Dowell D43A or 3% Calcium Chloride.

Production - Cement volumes and composition to be determined from caliper logs. Cement to be set 1000 feet above the uppermost productive zone.

5. Operator's minimum specifications for pressure control equipment requires a 10-inch, 3000 psi double gate blowout preventer with blind rams in the top and 4-1/2-inch pipe rams in the bottom and a 10-inch, 3000 psi bag-type blowout preventer from the surface to the total depth. See attached diagrams. Blowout preventer will be tested by rig equipment after each string of casing is run.

WEXPRO COMPANY  
BUG WELL NO. 1  
LEASE NO. U-40025  
NE 1/4 SE 1/4 Section 12, T.36S., R.25E.  
San Juan County, Utah  
10-Point Plan  
Page Two

6. Fresh water with minimum properties from surface to 6,265'. Spud mud will be used for the surface hole. A mud de-sander will be used from under the surface casing to the total depth. The mud weight will be brought to 12 ppg before drilling into the Desert Creek zone at 6,265'.

Sufficient mud materials to maintain mud requirements and to control minor lost circulation and blowout problems will be stored at the well site.

7. Auxiliary equipment will consist of:

1. A manually operated kelly cock.
2. No floats at bit.
3. Mud will be monitored visually from 1600' to the total depth.
4. Full opening Shafer floor valve manually operated.

8. Three drill stem tests - (1) Upper Ismay 5,960'; (2) Lower Ismay 6,140'; (3) Desert Creek 6,265'.

One 60-foot core in the Lower part of the Upper Ismay, 5,980'.

Mechanical Logs:

DIL from below surface casing to total depth.

DHC-GR with caliper from surface to total depth.

Sideway Neutron Porosity log bottom 2000 feet of hole.

The planned stimulation is to acidize the well with approximately 15,000 gallons of HCl acid.

No abnormal temperatures or H<sub>2</sub>S is anticipated. No abnormal pressures anticipated except the Lower Desert Creek zone at 6,265'. The pressure will be controlled with mud.

10. The anticipated spud date is October 10, 1979. Duration of drilling will be approximately 15 days with 2 days completion.

# CHECKLIST 3000psi EQUIPMENT

Well number \_\_\_\_\_ Company \_\_\_\_\_  
Contractor and operator to furnish items checked in

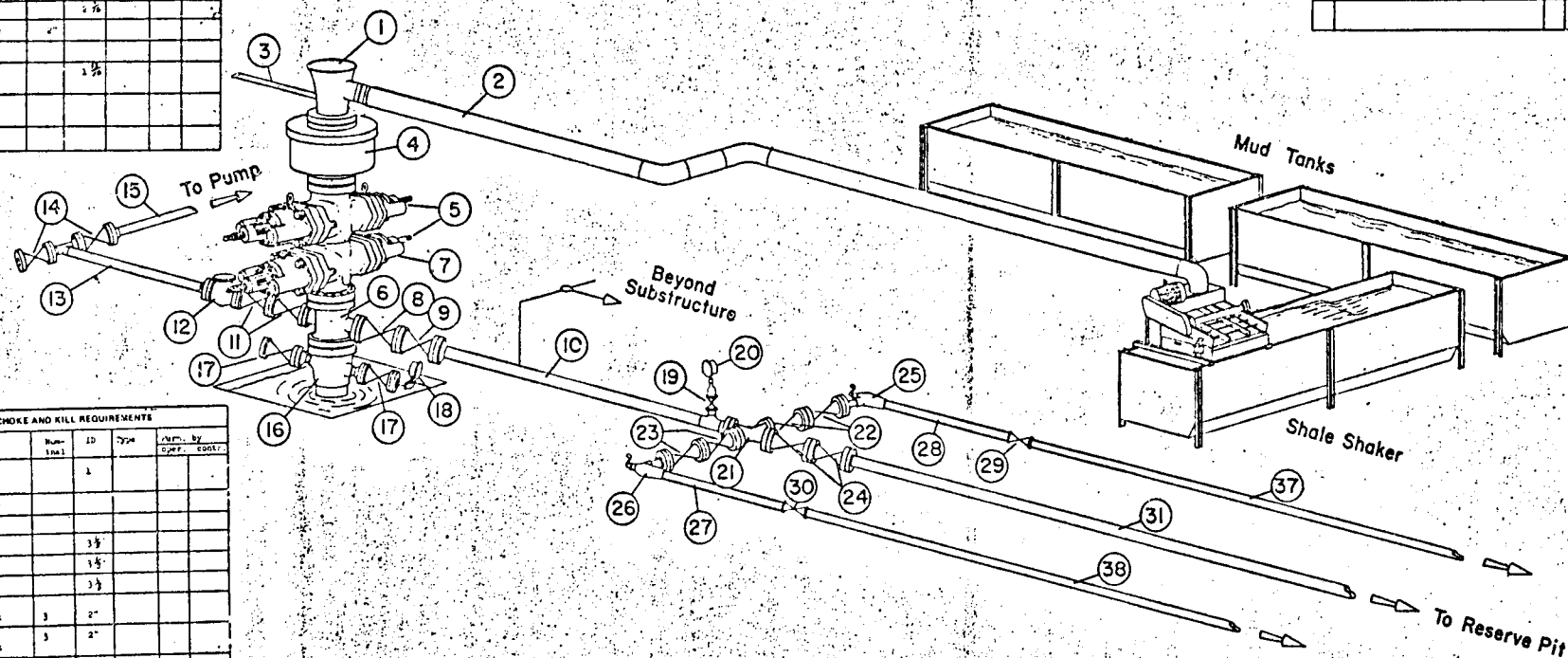
STANDARD STACK REQUIREMENTS					
No.	Item	Num- Inch	ID Inch	Type	Prov. by Contractor
1	Drilling Riggle				
2	Fluoline				
3	Fill up Line	2"			
4	Annular Preventer			Hydril Cameron Shaffer	
5	Two single or one dual port. oper. ram			U. wt. F. LMC	
6	Drilling Spool with 2" and 3" outlets			Forged	
7	As Alternate to (6) Ann and Kill lines from outlets in this row				
8	Valve Gate		3 1/2		
9	Valve-Hydraulically operated Gate		3 1/2		
10	Choke Line		2.9		
11	Gate Valve		2 3/4		
12	Choke Valve		2 3/4		
13	Kill Line	2"			
14	Valve-Gate		2 3/4		
15	Kill line to Pump	2"			
16	Casting Head				
17	Valve Gate Flue		1 1/2		
18	Compound Pressure Gauge				
	near Bushing				

## MOUNTAIN FUEL SUPPLY COMPANY

### 3000 psi BLOWOUT PREVENTION EQUIPMENT

SPECIAL CHOKES AND KILL REQUIREMENTS					

SPECIAL STACK REQUIREMENTS					



STANDARD CHOKES AND KILL REQUIREMENTS					
No.	Item	Num- Inch	ID Inch	Type	Prov. by Contractor
19	Valve Gate Flue		1		
20	Compound Pressure				
21	Choke 3 1/2				
22	Valve Gate		3 1/2		
23	Valve Gate		1 1/2		
24	Valve Gate		3 1/2		
25	Choke Line H-2 or Equivalent	3	2"		
26	Choke Line H-2 or Equivalent	3	2"		
27	Line to Separator		2.9"		
28	Line to Separator		2.9"		
29	Valve Gate		3 1/2		
30	Valve Gate		3 1/2		
31	Line to Res. Pit		2.9"		
32					
33					
34					
35					
36					
37	Line to Res.		2.9"		
38	Line to Res. Pit		2.9"		

DEVELOPMENT PLAN FOR U.S.G.S. APPROVAL OF SURFACE USE  
WEXPRO DRILLING WELLS

Well Name: Bug Well No. 1  
Field or Area: San Juan County, Utah

1. Existing Roads:

- A) Proposed well site as staked: Refer to well location plat no. M-13904 , well pad layout map no. M-13905 and area map no. M-13907 for location of well, access road, cuts and fills, directional reference stakes, etc.
- B) Route and distance from nearest town or locatable reference point to where well access route leaves main road: Refer to area map no. M-13907  
From the well to Monticello, Utah is 35.5 miles.
- C) Access road to location: Refer to well location plat no. M-13905 and area map no. M-13907 for access road. (Color coded red for existing road and blue for road to be constructed.
- D) If exploratory well, all existing roads within a 3-mile radius of well site:  
Refer to area map M-13907.
- E) If development well, all existing roads within a 1-mile radius:  
Not a development well.
- F) Plans for improvement and/or maintenance of existing roads: Refer to access road drawing M-13908. An existing road from 52+42.3 to 70+27.3 will require reconstruction. The access road will be maintained by Wexpro Company as needed.

2. Planned Access Road:

- A) Width - 16' wide from shoulder to shoulder.
- B) Maximum grade - The maximum grade on the road is 8 percent.
- C) Turnouts - No turnouts will be constructed.
- D) Drainage design - A drainage ditch on the uphill side of the road will be constructed. It will be a minimum of one foot below the surface of the road. No water diversion ditches are anticipated.
- E) Location and size of culverts and description of major cuts and fills -  
1) No culverts needed.
- 2) No major cuts or fills required along the entire length of the access road being constructed. Refer to profile drawing for the earth work at the well pad.
- F) Surfacing material - None anticipated.
- G) Necessary gates, cattle guards or fence cuts - A cattle guard will be required at Survey Station 28+46.2 and 46+20.7.
- H) New or reconstructed roads - The new road to be constructed is center line flagged.

3. Location of Existing Wells - Refer to area map no. M- 13907

- A) Water wells - None within a three mile radius.

B) Abandoned wells - Amerada-Hess Corp. Connelly Fed. No. 1 located in Sec. E3. T.36S., R.25E. is a dry hole.

C) Temporarily abandoned wells - None within the area.

D) Disposal wells - None within the area.

E) Drilling wells - None within the area.

F) Producing wells - None within a three mile radius.

G) Shut-in wells - None within a three mile radius.

H) Injection wells - None within the area.

I) Monitoring or observation wells for other resources - None within the area.

4. Location of Existing and/or Proposed Facilities - Refer to area map no. M- 13907.

A) 1) Tank Batteries - None within a 3 mile radius.

2) Production Facilities - None within a 3 mile radius.

3) Oil Gathering Lines - None within a 3 mile radius.

4) Gas Gathering Lines - None within a 3 mile radius.

5) Injection Lines - None within the area.

6) Disposal Lines - None within the area.

B) 1) Proposed location and attendant lines by flagging if off the well pad - Any production line to produce this well will require an extensive amount of research and engineering to determine the most suitable route. It is beyond the scope of this application to handle the pipeline right-of-way, but the B.L.M. will be consulted before any formal right-of-way application is filed.

2) Dimensions of facilities - Refer to drawing M-12205.

3) Construction methods and materials - The on-location pipelines will be buried approximately 30 inches. The dehydration unit will be a pre-fab unit and will be skid mounted and installed on a gravel base. The tank will have a fire dyke installed around it. The pit will be fenced as described below. Also, the pit will be approximately 7 feet deep.

4) Protective measures and devices to protect livestock and wildlife - All sump pits will be fenced. The fence shall be woven wire at least 48-inches high and within 4-inches of the ground. If oil is in the sump pit, the pit will be overhead flagged to keep birds out.



- C) Plans for rehabilitation of disturbed area no longer needed for operations after construction is completed - Areas of none use will be restored and reseeded as recommended by the B.L.M.
5. Location and Type of Water Supply - Refer to area map M-13907.
- A) Location of Water - Section 5, T.36S., R.26E., Roy Gilbreth water pond.
- B) Method of Transporting Water - To be hauled by 100 BBL tank truck over existing access roads.
- C) Water Well to be Drilled on Lease - None anticipated.
6. Source of Construction Material - None anticipated.
- A) Information - None.
- B) Identify if from Federal or Indian land - None.
- C) Where materials are to be obtained and used - None.
- D) Access roads crossing Federal or Indian lands - None.
7. Method for Handling Waste Disposal -
- A-D) Cuttings and drilling fluids will be placed in the mud pit. Any produced liquids will be placed in test tanks and hauled out by tank trucks. A chemical toilet will be installed on the well pad. The mud pit shall be constructed with at least 1/2 of its holding capacity below ground level. It shall be fenced as described in Section 10-A.
- E) Garbage and other waste material will be placed in the burn pit and covered over with wire mesh to contain the garbage.
- F) After drilling operations have been completed, the location will be cleared of litter, and the trash will be burned in the burn pit. The burn pit will be covered over. The mud pit liquids will be allowed to evaporate. Any fill material on the mud pit will be compacted with heavy equipment.
8. Ancillary Facilities - No camps or airstrips exist now, and Wexpro Company has no plans to build them.
9. Well Site Layout - Refer to drawing no. M- 13905.
- 1) Refer to drawing no. M- 13906 for cross section of drill pad and mud pit with cuts and fills.
- 2, 3) Refer to the location plat for location of mud tanks, reserve pit, burn pit, pipe racks, living facilities, soil material stockpile, rig orientation, parking areas and access roads.
- 4) The mud pit is to be unlined.
10. Plans for Restoration of Surface -
- A) After drilling operations, the well site will be cleared and cleaned and the burn pit filled in. Should the well be a dry hole, the surface will be restored to the extent that it will blend in with the landscape. Prior to the onset of drilling, the mud pit shall be fenced on three sides. Immediately upon completion of drilling, the fourth side of the pit will be fenced. The fence will be maintained until restoration.
- B) Revegetation and rehabilitation of the location and access road will be done to comply with Bureau of Land Management recommendations.
- C) Prior to rig release, pits will be fenced and so maintained until clean up. The trash pit will be dug so when filled, the depth will be at least three-feet below the finished contour of the location.

D) If oil is in the mud pit, overhead flagging will be installed to keep birds out.

E) Clean up will begin within two months after drilling operations have been completed and the land will be restored at this time.

11. Other Information -

A) The location lies on a ridge between 2 large and steep drainages. The soil is sandy with sandstone outcrops. The vegetation is juniper trees and native grass. The access road bears northeasterly more or less. The soil conditions described above are similar for the access road for approximately the first 2800 feet. The next 1800 feet is sandy soil, salt sage, sagebrush and native grass. The remainder of the access roads traverses through cultivated fields.

B) The surface at the well site is U. S. Government. A portion of the access road crosses Joseph W. Gilbreth property.

C) No major source of water exists within the area. Joseph Gilbreth's ranch is located approximately 1 mile northeast. Several archaeological sites are located throughout the area. No historical or cultural sites exist to my knowledge.

12. Lessee's or Operator's Representative -

A. J. Maser, Drilling Superintendent, P. O. Bx 1129, Rock Springs, Wyoming 82901, Telephone No. 307-362-5611.

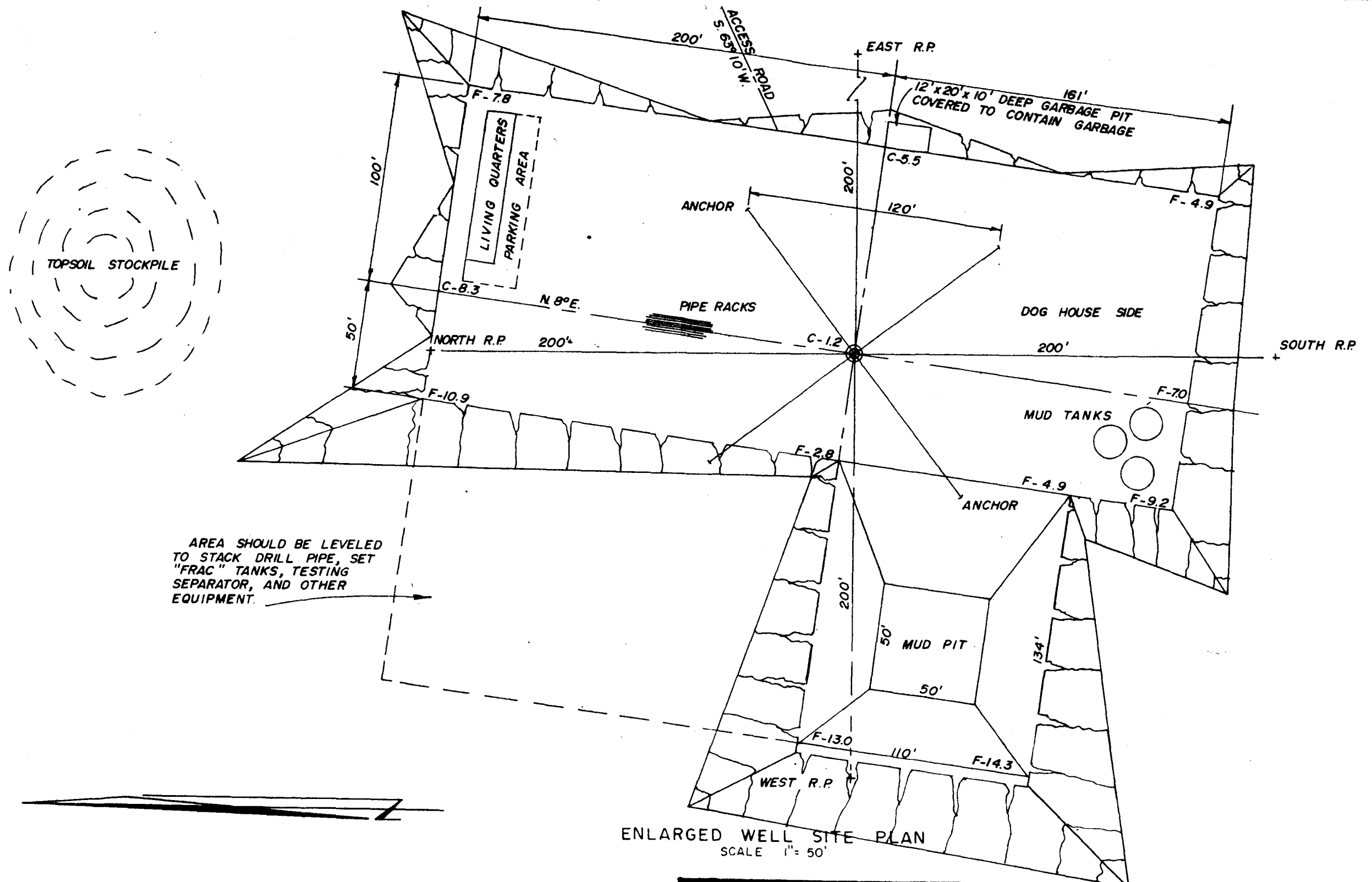
13. Certification -

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Wexpro Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date 9/10/79

Name A. J. Maser

Title Drilling Superintendent



#### GENERAL NOTES:

At sites where topsoil is present, same is to be removed and stored on the adjacent land for restoration at the site when required 1772 cubic yards or the top 6" of topsoil is to be stockpiled.

Mud pit and garbage pit are to be fenced and unlined.

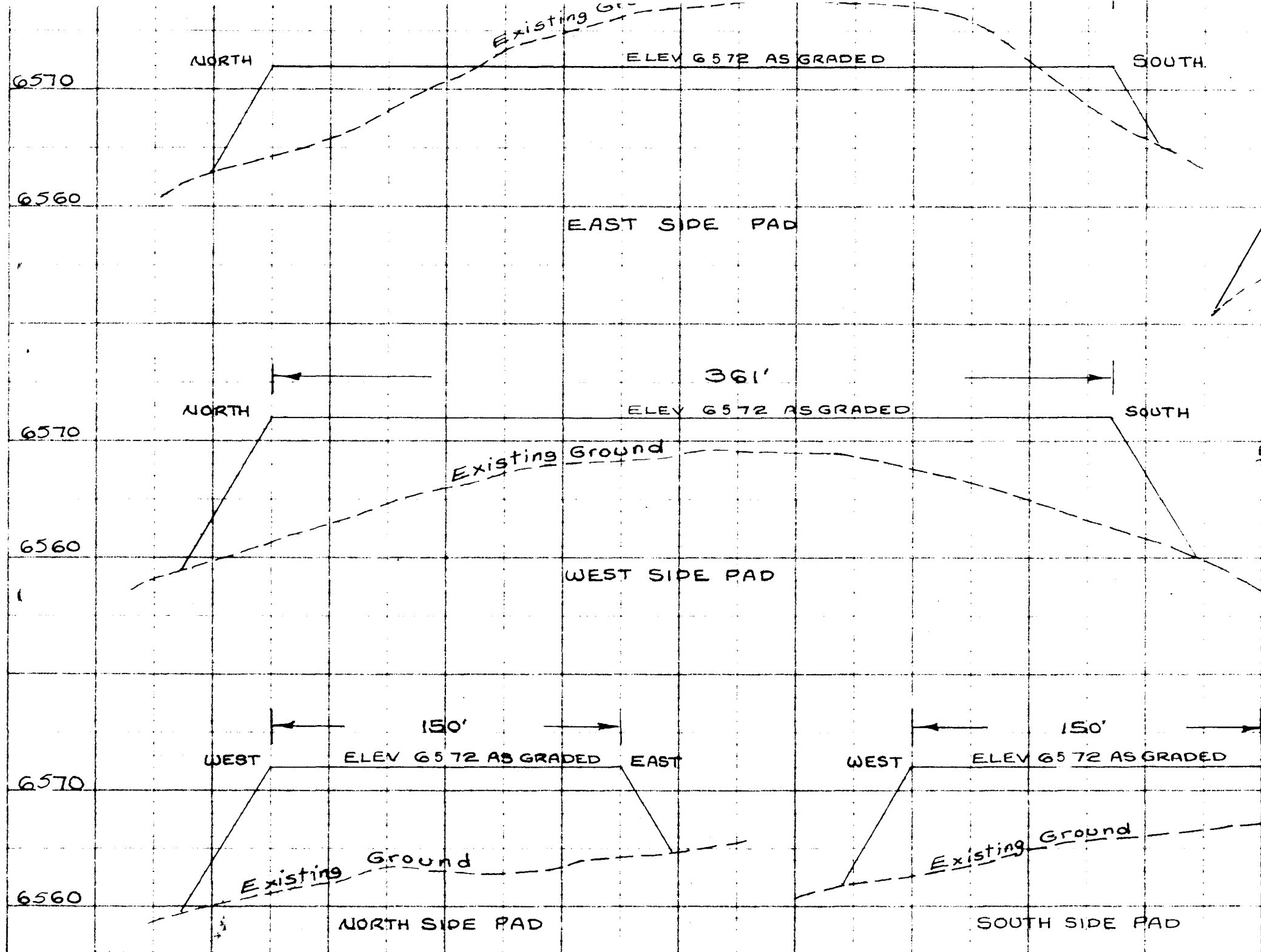
For well location profiles see drawing number M-13906

Area for well location is 1.24 acres.

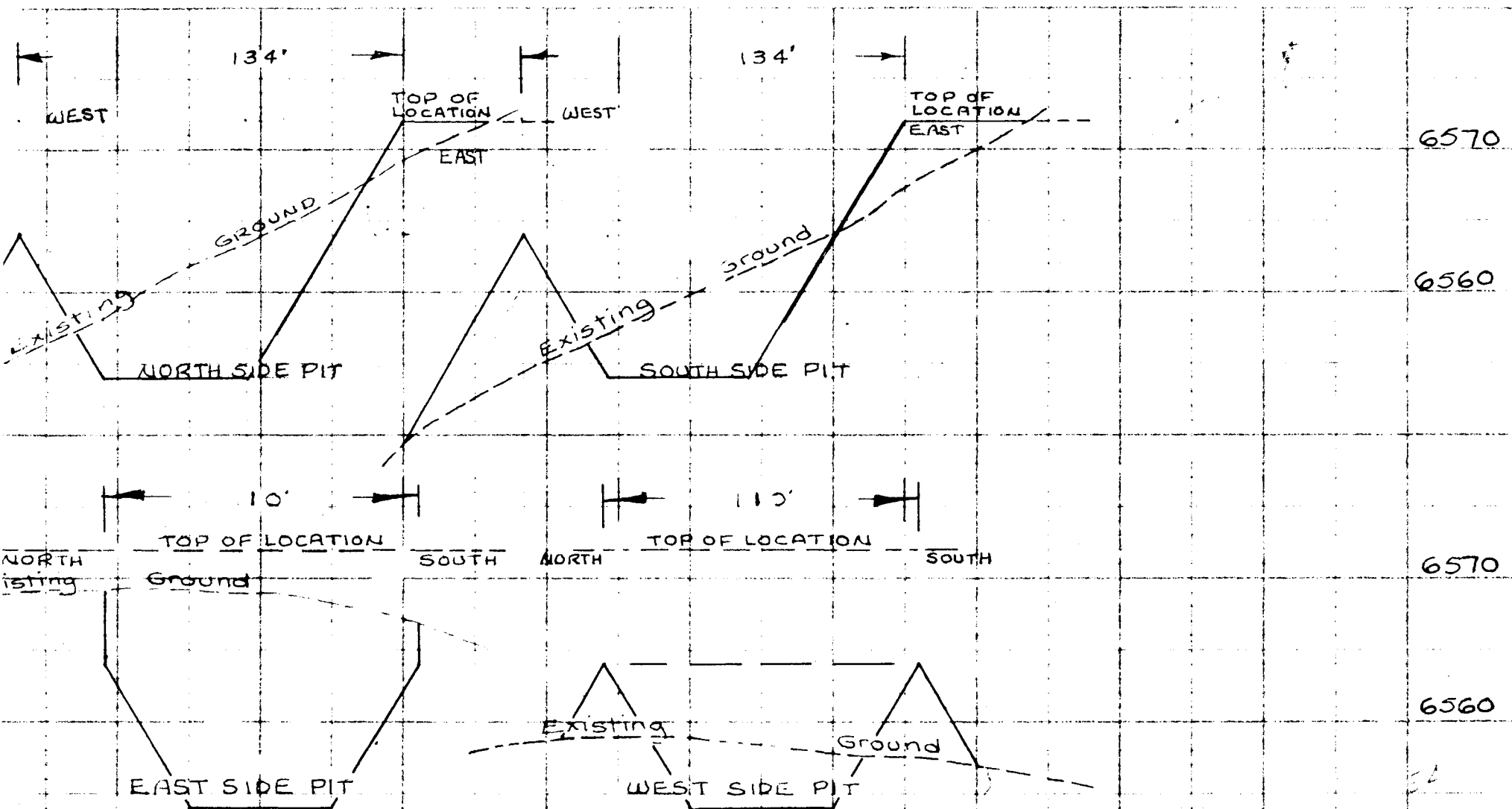
Cuts are at 3:1, Fills are at 3:1.

Sign designating topsoil stockpile to be installed.

REVISIONS				WEXPRO COMPANY	
NO.	DESCRIPTION	DATE	BY	CERTIFIED WELL LOCATION AND WELL SITE PLAN	
				BUG WELL No 1	
				DRAWN: 9579 A.O.H. SCALE: 1" = 50'	
				CHECKED: <i>Ray J.</i> DRWG. NO. M-13905	
				APPROVED: 2/4	







PROFILE SECTIONS PROPOSED GRADED LOCATION & GRADED SUMP PIT

SCALE HORIZ - 1"=50

VERT - 1"=10

CUTS & FILLS AT 3:1

WEXPRO COMPANY  
ROCK SPRINGS WYO

WELL SITE PROFILES

BUG WELL NO. 1

SEC 12 T36S R25E

SAN JUAN CO., UTAH

CRW

M-13906

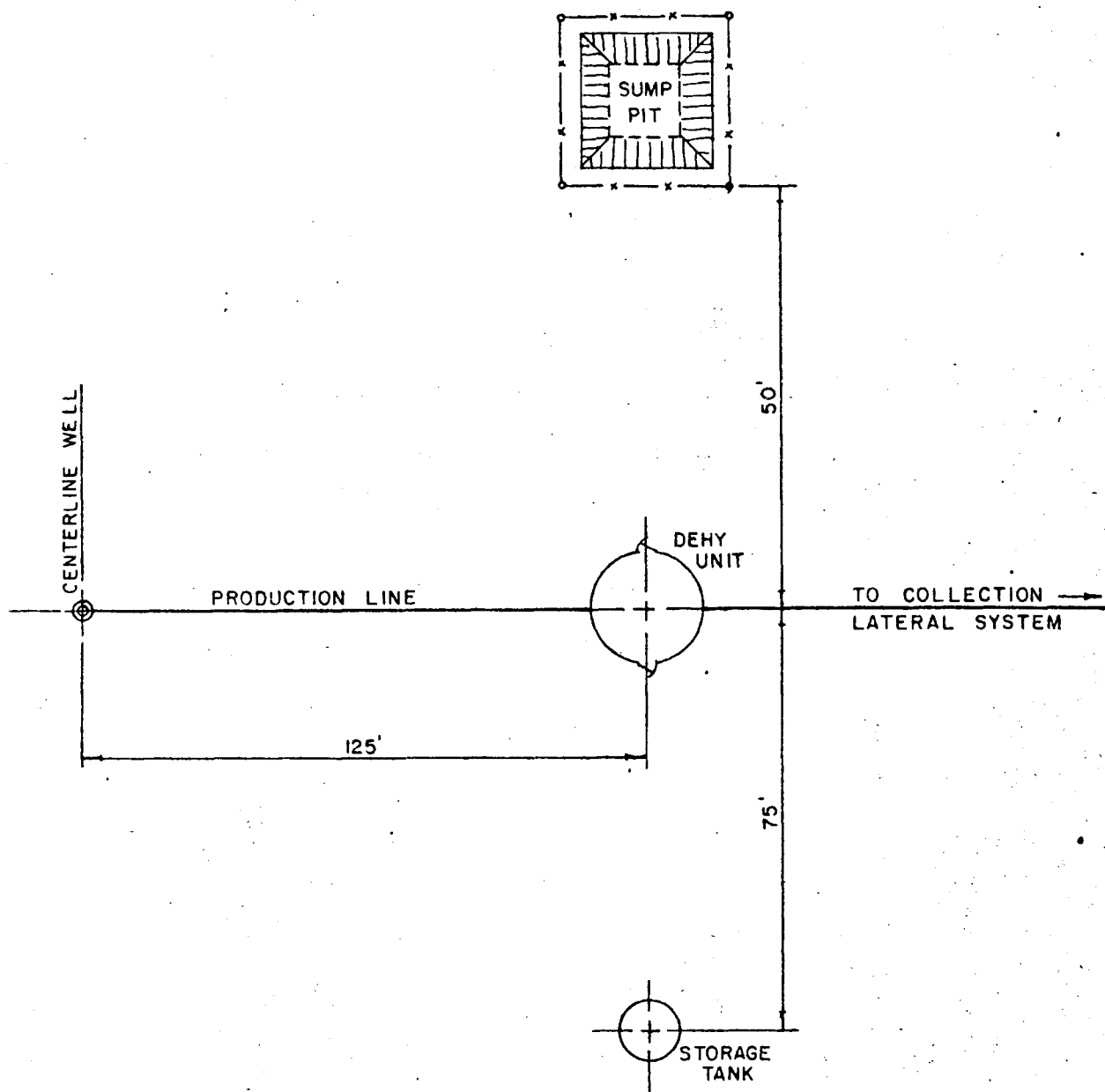
A-11


CLARK REED & ASSOC.

DATE AUG 28 1979

DURANGO, COLORADO

FILE NO. 700601



REVISIONS				 <b>MOUNTAIN FUEL</b> SUPPLY COMPANY ROCK SPRINGS, WYOMING	
NO.	DESCRIPTION	DATE	BY		
				<b>TYPICAL PRODUCTION FACILITIES LAYOUT FOR BUG WELL No. 1</b>	
				DRAWN: 7/9/76 FJC CHECKED: <i>Ray J</i> APPROVED:	SCALE: NONE DRWG. NO. <b>M-12205</b>

**\*\* FILE NOTATIONS \*\***

DATE: Sept 12, 1979

Operator: W. Expro Company

Well No: Bug #1

Location: Sec. 12 T. 36S R. 25E County: San Juan

File Prepared: ☒

Entered on N.I.D.: ☒

Card Indexed: ☒

Completion Sheet: ☒

☒ API Number 43-037-30499

**CHECKED BY:**

Geological Engineer: \_\_\_\_\_

Petroleum Engineer: \_\_\_\_\_

Director: as per our tele conversation on Sept 14, 1979,  
please be advised that...

**APPROVAL LETTER:**

Bond Required: ☐

Survey Plat Required: ☐

Order No. \_\_\_\_\_

O.K. Rule C-3 ☐

Rule C-3(c), Topographic Exception/company owns or controls acreage  
within a 660' radius of proposed site ☐

Lease Designation Bed

Plotted on Map ☒

Approval Letter Written ☒

*Wtm*

#2



**MOUNTAIN FUEL SUPPLY COMPANY**

180 EAST FIRST SOUTH • P. O. BOX 11368 • SALT LAKE CITY, UTAH 84139 • PHONE (801) 534-5555

September 14, 1979

Division of Oil, Gas and Mining  
1588 W. North Temple  
Salt Lake City, UT 84116

ATTN: Mr. Cleon Feight, Director

Gentlemen:

Re: Consent to Location  
Bug Well #1  
San Juan County, Utah

Mountain Fuel Supply Company is the lessee of record of the US leases carried under serial numbers U-39251 and U-39928 covering lands in Section 12, Township 36 South, Range 25 East.

Wexpro Company has advised of their location for the Bug Well #1 as being 2400 feet from the South Line and 407 feet from the East Line of this Section.

Please be advised that Mountain Fuel Supply Company consents to this location.

Very truly yours,

R. E. Pittam  
Staff Landman

REP:wb





MAY PETROLEUM INC, GM  
1 ENERGY SQUARE SUITE 1000  
DALLAS TX 75206

western union

Mailgram



4-018799 S2 003 09/18/79 ICS IPMBNGZ CSP SLCA  
2 214 01 000 MGM TDBN DALLAS TX 09-18 1034A EST

DIVISION OF OIL, GAS AND MINING, ATTN CLEON B FEIGHT DIRECTOR  
1588 WEST NORTH TEMPLE  
SALT LAKE CITY UT 84116

THIS IS A CONFIRMATION COPY OF A PREVIOUSLY PHONE-DELIVERED TELEGRAM

MAY PETROLEUM INC DOES HEREBY CONSENT TO THE BUG WELL #1, LOCATION AS  
PROPOSED IN YOUR LETTER OF SEPTEMBER 14, 1979. MAY IS SUPPORTING THIS  
TEST WITH AN OPTION FARM OUT ON MAY'S LEASE U-39254.

C R BROWN, EXPLORATION MANAGER<ROCKY MOUNTAIN DIVISION

1035 EST

MGMCOMP MGM



September 19, 1979

Wexpro Company  
PO Box 1129  
Rock Springs, Wyoming 82901

Re: Well No. Bug #1  
Sec. 12, T. 36S, R. 25E.,  
San Juan County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas well on said unorthodox location is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER  
Geological Engineer  
Office: 533-5771  
Home: 87603001

or

FRANK M. HAMNER  
Chief Petroleum Engineer  
Office: 533-5771  
Home: 531-7827

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-037-30499.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder  
Geological Engineer

/b:tm

cc: USGS

# J. M. HUBER CORPORATION

1601 FIRST NATIONAL BANK BUILDING

DENVER, COLORADO 80293

OIL AND GAS DIVISION

DENVER DISTRICT  
825-5611

September 18, 1979

Division of Oil, Gas and Mining  
1588 W. N. Temple  
Salt Lake City, Utah 84116

Attn: Mr. Cleon B. Feight  
Director

Re: Approval of Location  
407' FEL, 2400' FSL  
Bug #1 Well  
Section 12-36S-25E  
San Juan County, Utah  
31-N-255-B

Gentlemen:

This letter will evidence J. M. Huber Corporation's approval of the excepted location for the drilling of the Bug #1 well as captioned.

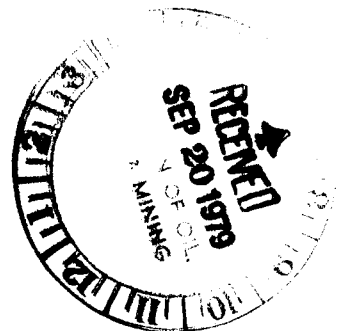
J. M. Huber is a working interest owner within one-half mile (Lease U-38282) and hereby consents to the captioned location.

Respectfully,

J. M. HUBER CORPORATION

*K. F. Appis*  
K. F. Appis  
Landman

KFA/bd



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPL  
(Other instructions on re-  
verse side)Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U - 40052

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

-

7. UNIT AGREEMENT NAME

-

8. FARM OR LEASE NAME

Bug

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

12-36S-25E., SCB&amp;M

12. COUNTY OR PARISH 13. STATE

San Juan

Utah

1. OIL ☐ GAS ☒ OTHER

2. NAME OF OPERATOR

Wexpro Company

3. ADDRESS OF OPERATOR

P. O. Box 1129, Rock Springs, Wyoming 82901

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

NE SE 2400' FSL, 407' FEL

14. PERMIT NO.

API #: 43-037-30499

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

KB 6586.70' GR 6573'

## 16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐

(Other)

PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON\* ☐CHANGE PLANS ☐

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐

(Other)

REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT\* ☐Supplementary History ☒(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

TD 6382', PBD 6323', rig released 1-18-80.

Spudded on November 17, 1979, landed 9-5/8", 36#, K-55, 8rd thd, ST&amp;C casing at 616.55' KBM, set with 325 sacks regular G cement treated with 3% calcium chloride, returned 2 barrels slurry to surface, cement in place at 5 p.m. on 11-20-79.

Landed 5 1/2", 15.5#, K-55, 8rd thd, LT&amp;C casing at 6382.24' KBM, set with 715 sacks 50-50 Pozmix A treated with 2% bentonite, cement in place at 2:30 a.m. on 1-14-79.

DST #1: 6168-6205', Desert Creek, IO 1/2 hr, ISI 1 hr, FO 1 hr, FSI 2-1/2 hrs, opened very weak declined to nearly dead, reopened with medium blow declined to nearly dead, no gas, recovered 95' gas cut mud, IHP 3104, IOFP's 27-27, ISIP 668, FOFP's 27-27, FSIP 1360, FHP 2942.

DST #2: 6297-6333', Desert Creek, IO 55 mins, ISI 90 mins, FO 120 mins, FSI 296 mins, opened strong, GTS in 11 mins, 1/2 hr 7500 Mcf, 40 mins 69 barrels oil and 15 barrels water and mud, reopened, 1 hr 6500 Mcf, 2 hrs 6500 Mcf, recovered 110 barrels oil and water, total fluid 194 barrels, IHP 4113, IOFP's 2104-2783, ISIP 3516, FOFP's 1861-2701, FSIP 3516, FHP 4004.

Perforated with 2 holes per foot from 6289' to 6293', landed 2-7/8" tubing at 6225.26', testing.

18. I hereby certify that the foregoing is true and correct

SIGNED

*Lee Martin*

TITLE Asst. Drilling Supt.

DATE Feb. 20, 1980

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

FEB 22 1980

\*See Instructions on Reverse Side

DIVISION OF  
OIL, GAS & MINING



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

(See other in-  
structions on  
reverse side)Form approved.  
Budget Bureau No. 42-R355.5.

9

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL:		OIL WELL <input checked="" type="checkbox"/>	GAS WELL <input type="checkbox"/>	DRY <input type="checkbox"/>	Other _____		
b. TYPE OF COMPLETION:		NEW WELL <input checked="" type="checkbox"/>	WORK OVER <input type="checkbox"/>	DEEP-EN <input type="checkbox"/>	PLUG BACK <input type="checkbox"/>	DIFF. RESVR. <input type="checkbox"/>	Other _____
2. NAME OF OPERATOR Wexpro Company						5. LEASE DESIGNATION AND SERIAL NO. W - 40052	
3. ADDRESS OF OPERATOR P. O. Box 1129, Rock Springs, Wyoming 82901						6. IF INDIAN, ALLOTTEE OR TRIBE NAME -	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface NE SE 2400' FSL, 407' FEL At top prod. interval reported below At total depth						7. UNIT AGREEMENT NAME -	
14. PERMIT NO. 43-037-30499						DATE ISSUED -	
15. DATE SPUDDED 11-17-79						18. ELEVATIONS (DF, REB, RT, GR, ETC.)* KB 6586.70' GR 6573'	
16. DATE T.D. REACHED 1-9-80		17. DATE COMPL. (Ready to prod.) 2-19-80		19. ELEV. CASINGHEAD -		12. COUNTY OR PARISH San Juan	
20. TOTAL DEPTH, MD & TVD 6382		21. PLUG, BACK T.D., MD & TVD 6323		22. IF MULTIPLE COMPL., HOW MANY* -		13. STATE Utah	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 6289 - 6293' Desert Creek						25. WAS DIRECTIONAL SURVEY MADE No	
26. TYPE ELECTRIC AND OTHER LOGS RUN DIL, BHC Acoustilog, Density-Neutron						27. WAS WELL CORED Yes	
28. CASING RECORD (Report all strings set in well)							
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE	
9-5/8		36		616.55		12-1/4	
5-1/2		15.5		6,382.24		8-3/4	
29. LINER RECORD							
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*	
30. TUBING RECORD							
SIZE		DEPTH SET (MD)		PACKER SET (MD)			
2-7/8		6225.26		-			
31. PERFORATION RECORD (Interval, size and number)							
6289 - 6293', jet, 2 holes per foot							
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.							
DEPTH INTERVAL (MD)				AMOUNT AND KIND OF MATERIAL USED			
33.* PRODUCTION							
DATE FIRST PRODUCTION 1-17-80		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing				WELL STATUS (Producing or shut-in) Shut in	
DATE OF TEST 2/6-19/80		HOURS TESTED 312		CHOKE SIZE 22/64		PROD'N. FOR TEST PERIOD -	
FLOW. TUBING PRESS. 900		CASING PRESSURE 1400		CALCULATED 24-HOUR RATE -		OIL—BBL. 608	
						GAS—MCF. 1128	
						WATER—BBL. 1868	
						OIL GRAVITY API (CORR.) 25	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)							
Flared while testing.							
35. LIST OF ATTACHMENTS							
Logs as above, Well Completion and Well Lithology to be sent at a later date.							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED Thomas C. Smith		TITLE Director, Petroleum Engrg.		DATE 2-21-80			

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29:** "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool. **Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
				Log tops:		
				Morrison	0'	
				Entrada	1,040	
				Carmel	1,175	
				Navajo	1,230	
				Wingate	1,675	
				Chinle	1,940	
				Shinarump	2,683	
				Moenkopi	2,760	
				Cutler	2,925	
				Hermosa	4,650	
				Paradox	5,328	
				Upper Ismay	5,810	
				Lower Ismay	5,980	
				Desert Creek	6,233	
				Salt	6,370'	

PERTINENT DATA

FIELD

	Bug Field
DISCOVERY DATE	January 7, 1980
DISCOVERY WELL	Bug Well No. 1
LOCATION OF DISCOVERY WELL	Sec 12 T36S R25E
	San Juan County, Utah

GEOLOGICAL FEATURES

FORMATION/AGE	Desert Creek/Pennsylvanian
INTERVAL / LITHOLOGY	Desert Creek/Carbonate
STRUCTURE	Monocline
TYPE OF ACCUMULATION	Stratigraphic Trap
CLOSURE	45+ Feet
GOC/HEIGHT OF GAS COLUMN	+325 / 11 Feet
OWC/HEIGHT OF OIL COLUMN	+291 / 34 Feet
AVERAGE PRODUCING DEPTH	6,300 Feet
PRODUCTIVE AREA	3,500 Acres (Approximate)

RESERVOIR DATA

INITIAL PRESSURE	3,622 PSIA @ +300 Feet
TEMPERATURE	141°F
PERMEABILITY	15 md (Estimated)
POROSITY	12.3% (Average)
SHALINESS	Less than 10%
CONNATE WATER SATURATION	41% (Average)
RESIDUAL OIL SATURATION	25% (Estimated)
GAS GRAVITY/B <sub>gi</sub>	0.927 / 0.000,624 BBLS/SCF
BUBBLE POINT PRESSURE	3520 PSIA
OIL GRAVITY/B <sub>oi</sub>	47.7 API / 2.289 RB/STB
OIL VISCOSITY	1.08 cp @ 141°F and 14.73 PSIA
INITIAL SOLUTION GOR	1,963 SCF/STBO
GAS CAP VOLUME & OIL RESERVOIR VOL.	0.48
SALINITY/RESISTIVITY OF WATER	384,000 ppm / 0.03 ohm-m
VISCOSITY OF WATER	0.716 cp

## PERTINENT DATA

### ORIGINAL HYDROCARBONS IN PLACE

AREA OF GAS CAP	<u>1,765 Acres</u>
AVERAGE THICKNESS OF GAS CAP	<u>8.50 Feet</u>
VOLUME OF GAS CAP	<u>15,000 Acre-Feet</u>
ORIGINAL GAS IN PLACE	<u>13.470 BSCF</u>
AREA OF OIL RESERVOIR	<u>2,200 Acres</u>
AVERAGE THICKNESS OF OIL COLUMN	<u>14.11 Feet</u>
VOLUME OF OIL RESERVOIR	<u>31,000 Acre-Feet</u>
ORIGINAL OIL IN PLACE	<u>8.650 MMSTB</u>

### CUMULATIVE PRODUCTION AND INJECTION DATA TO: 08-11-81

GAS PRODUCTION	<u>22,856 MSCF</u>
OIL PRODUCTION	<u>45,873 STBO</u>
WATER PRODUCTION	<u>8,368 STBW</u>
GAS INJECTION	<u>None</u>
WATER INJECTION	<u>None</u>

### RECOVERY FIGURES (STBO)

PRESENT PRIMARY	<u>45,873 STBO</u>
FINAL PRIMARY	<u>14.1% = 1,220,000 STBO</u>
PRESENT SECONDARY	<u>None</u>
FINAL SECONDARY	<u>13.5% = 1,180,000 STBO</u>
TOTAL FINAL RECOVERY	<u>27.6% = 2,400,000 STBO</u>
REMAINING HYDROCARBON TO PRODUCE	<u>2,354,127 STBO</u>

### CHRONOLOGICAL DATA

GAS INJECTION STARTED	<u>N/A</u>
WATER INJECTION STARTED	<u>N/A</u>
REMAINING LIFE OF THE RESERVOIR	<u>12 Years under Primary</u>



## MATERIAL BALANCE CALCULATIONS

### BUG FIELD

### SAN JUAN COUNTY, UTAH

Schilthuis Material Balance calculations for the Bug Field were finalized using actual reservoir rock and fluid data provided by Core Laboratories, Inc. The PVT data were taken from bottom hole fluid samples from Bug Well No. 4; while the gas-oil relative permeability data were from core samples obtained from Bug Well No. 2.

Three production scenarios were investigated using the material balance calculation. They were:

- Case 1. Primary depletion to 250 psig reservoir pressure.
- Case 2. Partial pressure maintenance by gas injection beginning at bubble point pressure (3520 psig).
- Case 3. Partial pressure maintenance by gas injection beginning at 2500 psig reservoir pressure.

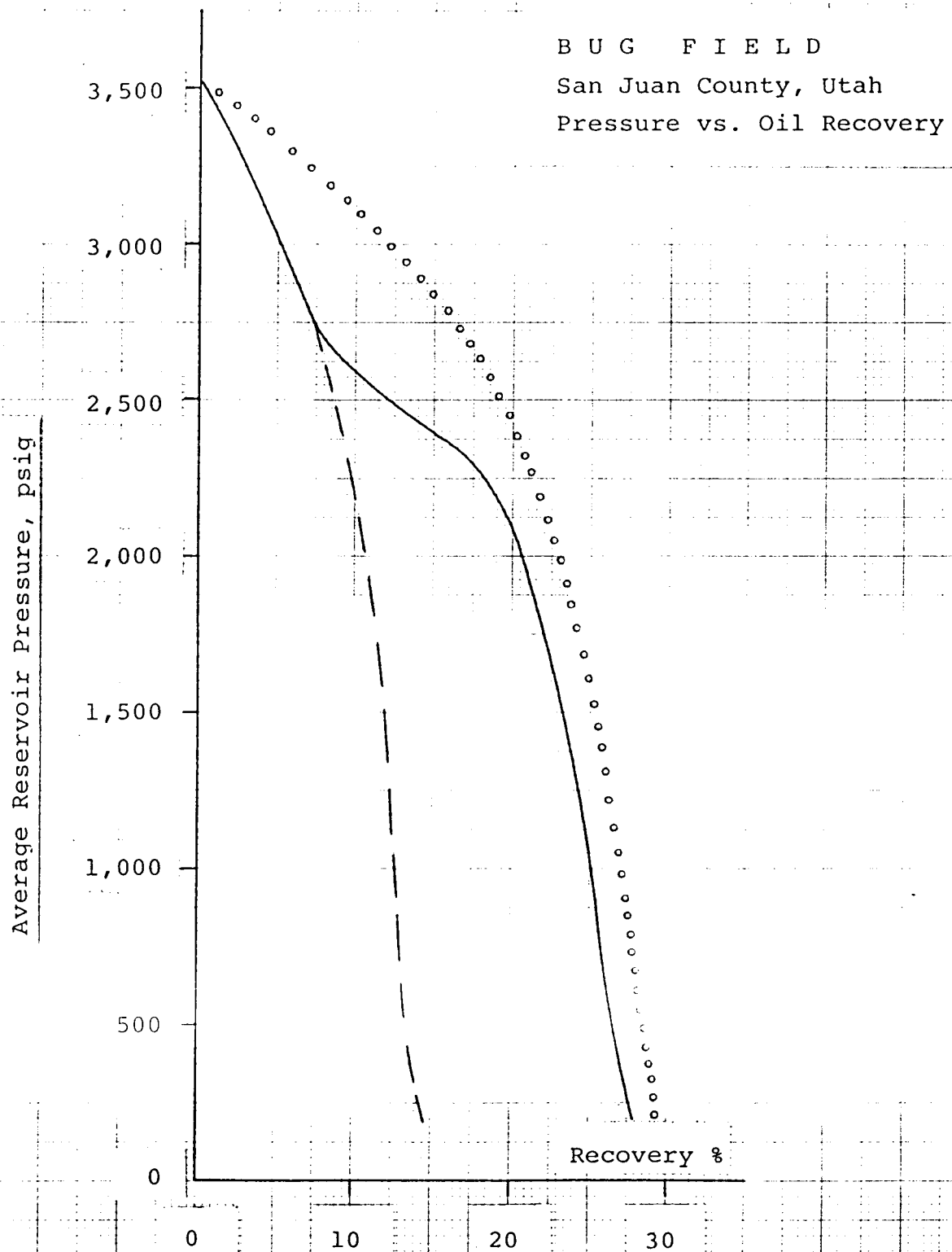
In Cases 2 and 3, 75% of the produced gas was reinjected into the gas cap.

Results for each case were as follows:

	<u>Recovery, %</u>	<u>Recovery, STBO</u>
Case 1	14.06	1,216,190
Case 2	29.52	2,553,480
Case 3	27.56	2,383,940

These values are shown graphically in Figure 1. In addition, the raw results for each case are attached.

Figure 1



L E G E N D :

- ooo Reinjection 75% of Produced Gas starting at BP-Pressure
- Reinjection 75% of Produced Gas starting at 2,500 psig
- No Gas Injection.  $m = 0.48$

DSNAME='XRE4126.WRKPR' (28)

SCHILTHUIS MATERIAL - BALANCE  
\*\*\*\*\*  
(INTERNAL GAS DRIVE, GAS CAP DRIVE AND GAS INJECTION)

DATE = 08/11/81  
TIME = 15:50:56

INPUT DATA

AVERAGE POROSITY = 12.30 %  
CONNATE WATER SATURATION = 41.00 %  
GAS CAP VOL./OIL RES. VOL. = 0.48  
REINJECTED GAS/PROD. GAS = 0.0  
OIL GRAVITY (API) = 47.400  
DEAD OIL VISCOSITY (CP) = 1.080  
GAS GRAVITY (AIR=1.0) = 0.927  
FLUID CORRELATION USED = NO  
AUG. REL. PERM. CURVE USED = NO

RESERVOIR PARAMETERS

LITHOLOGY CARBONATE  
TYPE OF ACCUMULATION STRATIGRAPHIC TRAP  
GAS CAP VOLUME = 15000. AC-FT  
OIL RESERVOIR VOLUME = 31000. AC-FT  
INITIAL RES. PRESSURE = 3622. PSIG  
BUBBLE POINT PRESSURE = 3520. PSIG  
AVERAGE TEMPERATURE = 141.00 DEGREE F.  
AVERAGE PERMEABILITY = 15.00 MILLIDARCY  
ORIGINAL OIL IN PLACE = 8.65 MILLION STB  
ORIG. FREE GAS IN PLACE = 13.47 BILLION SCF

LOCATION

FIELD BUG FIELD  
WELL BUG NO. 4  
FORMATION DESERT CREEK  
SECTION 16  
TOWNSHIP 36S  
RANGE 26E  
COUNTY SAN JUAN  
STATE UTAH

PRESSURE DEPENDENT VARIABLES

BT, TOTAL FORMATION VOLUME FACTOR  
BG, GAS FORMATION VOLUME FACTOR  
BO, OIL FORMATION VOLUME FACTOR  
RS, SOLUTION GOR (SCF/STB)  
VO, OIL VISCOSITY (CENTIPOISE)  
UG, GAS VISCOSITY (CENTIPOISE)

REMARKS: THE CALCULATION OF OIL RECOVERY COMMEN-  
-----CES AT THE BUBBLE POINT PRESSURE. THE  
FRACTIONAL RECOVERY TO THE BUBBLE POINT  
PRESSURE IS:

$$REC. = CE * DP * BOI / BOB = 0.0020$$

OUTPUT

NP/N, OIL REC., % OF OOIP  
SNP/N, SUM OF RECOVERY %  
SL, LIQUID SATURATION  
RI, INSTANTANEOUS GOR  
RP, CUMULATIVE GOR

COMMENTS: PERFORMANCE AND ULTIMATE OIL RECOVERY OF THE BUG FIELD, DESERT CREEK RESERVOIR  
----- PRIMARY GAS CAP PRESENT. NONE OF THE PRODUCED GAS WILL BE REINJECTED.

PRESSURE	NP/N	SNP/N	BT	BG	BO	RS	VO	UG	SL	RI	RP
3520.	0.000	0.000	2.040	0.0006956	2.040	2000.	0.200	0.034050	100.000	2000.	2000.
3250.	2.750	2.750	2.080	0.0007304	1.890	1740.	0.219	0.031835	94.159	5149.	3675.
3000.	2.270	5.020	2.140	0.0007758	1.810	1575.	0.240	0.029458	90.720	7064.	4719.
2750.	2.250	7.270	2.256	0.0008347	1.730	1370.	0.267	0.027006	87.397	11323.	6104.
2500.	1.300	8.570	2.346	0.0009148	1.660	1250.	0.290	0.024482	84.895	16852.	7316.
2250.	1.140	9.710	2.503	0.0010253	1.590	1110.	0.320	0.021988	82.520	24994.	8913.
2000.	0.920	10.630	2.733	0.0011699	1.540	980.	0.351	0.019765	80.805	32893.	10648.
1750.	0.710	11.340	3.032	0.0013646	1.490	870.	0.390	0.017811	79.206	42247.	12332.
1500.	0.571	11.911	3.468	0.0016300	1.430	750.	0.434	0.016154	77.432	53834.	14044.
1250.	0.470	12.381	4.118	0.0020093	1.385	640.	0.518	0.014759	76.097	67084.	15806.
1000.	0.390	12.771	5.113	0.0025842	1.340	540.	0.568	0.013603	74.806	72189.	17449.
750.	0.370	13.141	6.839	0.0035505	1.300	440.	0.670	0.012655	73.657	75921.	19043.
500.	0.355	13.496	10.362	0.0054892	1.250	340.	0.820	0.011891	72.273	74735.	20524.
250.	0.570	14.066	22.694	0.0113778	1.190	110.	1.040	0.011294	70.576	58139.	22385.

END OF DATA  
READY

DSNAME='XRE4126.WRKPR'  
1(ZB)

SCHILTHUIS MATERIAL - BALANCE  
\*\*\*\*\*  
(INTERNAL GAS DRIVE, GAS CAP DRIVE AND GAS INJECTION)

DATE = 08/11/81  
TIME = 15:31:20

INPUT DATA

AVERAGE POROSITY = 12.30 %  
CONNATE WATER SATURATION = 41.00 %  
GAS CAP VOL./OIL RES. VOL. = 0.48  
REINJECTED GAS/PROD. GAS = 0.75  
OIL GRAVITY (API) = 47.400  
DEAD OIL VISCOSITY (CP) = 1.080  
GAS GRAVITY (AIR=1.0) = 0.927  
FLUID CORRELATION USED = NO  
AUG. REL. PERM. CURVE USED = NO

RESERVOIR PARAMETERS

LITHOLOGY CARBONATE  
TYPE OF ACCUMULATION STRATIGRAPHIC TRAP  
GAS CAP VOLUME = 15000. AC-FT  
OIL RESERVOIR VOLUME = 31000. AC-FT  
INITIAL RES. PRESSURE = 3622. PSIG  
BUBBLE POINT PRESSURE = 3520. PSIG  
AVERAGE TEMPERATURE = 141.00 DEGREE F.  
AVERAGE PERMEABILITY = 15.00 MILLIDARCY  
ORIGINAL OIL IN PLACE = 8.65 MILLION STB  
ORIG. FREE GAS IN PLACE = 13.47 BILLION SCF

LOCATION

FIELD BUG FIELD  
WELL BUG NO.4  
FORMATION DESERT CREEK  
SECTION 18  
TOWNSHIP 36S  
RANGE 26E  
COUNTY SAN JUAN  
STATE UTAH

PRESSURE DEPENDENT VARIABLES

BT, TOTAL FORMATION VOLUME FACTOR  
BG, GAS FORMATION VOLUME FACTOR  
BO, OIL FORMATION VOLUME FACTOR  
RS, SOLUTION GOR (SCF/STBO)  
UO, OIL VISCOSITY (CENTIPOISE)  
UG, GAS VISCOSITY (CENTIPOISE)

REMARKS: THE CALCULATION OF OIL RECOVERY COMMEN-  
CES AT THE BUBBLE POINT PRESSURE. THE  
FRACTIONAL RECOVERY TO THE BUBBLE POINT  
PRESSURE IS

REC. = CE\*DP\*BOI/BOB = 0.0020

OUTPUT

NP/N, OIL REC., % OF OOIP  
SNP/N, SUM OF RECOVERY %  
SL, LIQUID SATURATION  
RI, INSTANTANEOUS GOR  
RP, CUMULATIVE GOR

COMMENTS: PERFORMANCE AND ULTIMATE OIL RECOVERY OF THE BUG FIELD, DESERT CREEK RESERVOIR  
----- PRIMARY GAS CAP PRESENT. 75 % OF THE PRODUCED GAS WILL BE REINJECTED STARTING AT 2.500 PSIA RESERVOIR PRESSURE.

PRESSURE	NP/N	SNP/N	BT	BG	BO	RS	UO	UG	SL	RI	RP
3520.	0.000	0.000	2.040	0.0006956	2.040	2000.	0.200	0.034050	100.000	2000.	2000.
3250.	2.750	2.750	2.080	0.0007304	1.890	1740.	0.219	0.031835	94.159	5149.	3575.
3000.	2.270	5.020	2.140	0.0007758	1.810	1575.	0.240	0.029458	90.720	7064.	4719.
2750.	2.250	7.270	2.256	0.0008347	1.730	1370.	0.267	0.027006	87.397	11323.	6104.
2500.	4.140	11.410	2.346	0.0009148	1.660	1250.	0.290	0.024482	83.532	20670.	9694.
2250.	6.800	18.210	2.503	0.0010253	1.590	1110.	0.320	0.021988	78.611	43774.	18100.
2000.	2.100	20.310	2.733	0.0011699	1.540	980.	0.351	0.019765	76.493	61498.	21670.
1750.	1.530	21.840	3.032	0.0013646	1.490	870.	0.390	0.017811	74.682	81390.	25163.
1500.	1.230	23.070	3.468	0.0016300	1.430	750.	0.434	0.016154	72.817	104138.	28767.
1250.	0.990	24.060	4.118	0.0020093	1.385	640.	0.518	0.014759	71.419	130000.	32400.
1000.	0.840	24.900	5.113	0.0025842	1.340	540.	0.568	0.013603	70.105	139995.	35881.
750.	0.780	25.680	6.839	0.0035505	1.300	440.	0.670	0.012655	68.943	147643.	39140.
500.	0.742	26.422	10.362	0.0054892	1.250	340.	0.820	0.011891	67.600	144574.	42144.
250.	1.140	27.562	22.694	0.0113778	1.190	110.	1.040	0.011294	65.931	110685.	45880.

END OF DATA  
READY

DSNAME='XRE4126.WRKPR' 1(2)

SCHILTHUIS MATERIAL - BALANCE  
\*\*\*\*\*  
(INTERNAL GAS DRIVE, GAS CAP DRIVE AND GAS INJECTION)

DATE = 08/11/81  
TIME = 14:18:10

INPUT DATA

AVERAGE POROSITY = 12.30 %  
CONNATE WATER SATURATION = 41.00 %  
GAS CAP VOL./OIL RES. VOL. = 0.48  
REINJECTED GAS/PROD. GAS = 0.75  
OIL GRAVITY (API) = 47.400  
DEAD OIL VISCOSITY (CP) = 1.080  
GAS GRAVITY (AIR=1.0) = 0.927  
FLUID CORRELATION USED = NO  
AUG. REL. PERM. CURVE USED = NO

RESERVOIR PARAMETERS

LITHOLOGY CARBONATE  
TYPE OF ACCUMULATION STRATIGRAPHIC TRAP  
GAS CAP VOLUME = 15000. AC-FT  
OIL RESERVOIR VOLUME = 31000. AC-FT  
INITIAL RES. PRESSURE = 3622. PSIG  
BUBBLE POINT PRESSURE = 3520. PSIG  
AVERAGE TEMPERATURE = 141.00 DEGREE F.  
AVERAGE PERMEABILITY = 15.00 MILLIDARCY  
ORIGINAL OIL IN PLACE = 8.65 MILLION STB  
ORIG. FREE GAS IN PLACE = 13.47 BILLION SCF

LOCATION

FIELD BUG FIELD  
WELL BUG NO. 4  
FORMATION DESERT CREEK  
SECTION 16  
TOWNSHIP 36S  
RANGE 26E  
COUNTY SAN JUAN  
STATE UTAH

PRESSURE DEPENDENT VARIABLES

BT, TOTAL FORMATION VOLUME FACTOR  
BG, GAS FORMATION VOLUME FACTOR  
BO, OIL FORMATION VOLUME FACTOR  
RS, SOLUTION GOR (SCF/STBO)  
UO, OIL VISCOSITY (CENTIPOISE)  
UG, GAS VISCOSITY (CENTIPOISE)

REMARKS: THE CALCULATION OF OIL RECOVERY COMMEN-  
CES AT THE BUBBLE POINT PRESSURE. THE  
FRACTIONAL RECOVERY TO THE BUBBLE POINT  
PRESSURE IS:

$$REC = CE * DP * BOI / BOB = 0.0020$$

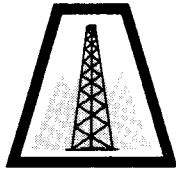
OUTPUT

NP/N, OIL REC., % OF OOIP  
SNP/N, SUM OF RECOVERY %  
SL, LIQUID SATURATION  
RI, INSTANTANEOUS GOR  
RP, CUMULATIVE GOR

COMMENTS: PERFORMANCE AND ULTIMATE OIL RECOVERY OF THE BUG FIELD, DESERT CREEK RESERVOIR.  
----- PRIMARY GAS CAP PRESENT. 75 % OF THE PRODUCED GAS WILL BE REINJECTED STARTING AT BUBBLE POINT PRESSURE.

PRESSURE	NP/N	SNP/N	BT	BG	BO	RS	UO	UG	SL	RI	RP
3520.	0.000	0.000	2.040	0.0006956	2.040	2000.	0.200	0.034050	100.000	2000.	2000.
3250.	6.550	6.550	2.080	0.0007304	1.890	1740.	0.219	0.031835	92.081	6109.	4054.
3000.	5.410	11.960	2.140	0.0007758	1.810	1575.	0.240	0.029458	87.087	11279.	6153.
2750.	4.610	16.570	2.256	0.0008347	1.730	1370.	0.267	0.027006	82.744	22347.	9119.
2500.	2.610	19.180	2.346	0.0009148	1.660	1250.	0.290	0.024482	79.802	35303.	11801.
2250.	2.210	21.390	2.503	0.0010253	1.590	1110.	0.320	0.021988	77.149	54115.	15201.
2000.	1.730	23.120	2.733	0.0011699	1.540	980.	0.351	0.019765	75.242	73704.	18845.
1750.	1.320	24.440	3.032	0.0013646	1.490	870.	0.390	0.017811	73.561	95241.	22390.
1500.	1.070	25.510	3.468	0.0016300	1.430	750.	0.434	0.016154	71.808	120028.	25966.
1250.	0.870	26.380	4.118	0.0020093	1.385	640.	0.518	0.014759	70.490	148204.	29632.
1000.	0.740	27.120	5.113	0.0025842	1.340	540.	0.568	0.013603	69.245	158072.	32904.
750.	0.700	27.820	6.839	0.0035505	1.300	440.	0.670	0.012655	68.138	165417.	36146.
500.	0.670	28.490	10.362	0.0054892	1.250	340.	0.820	0.011891	66.852	160395.	39127.
250.	1.030	29.520	22.694	0.0113778	1.190	110.	1.040	0.011294	65.257	120745.	42867.

END OF DATA  
READY



## WEXPRO COMPANY

79 SOUTH STATE STREET • P.O. BOX 11070 • SALT LAKE CITY, UTAH 84147 • PHONE (801) 530-2600

RECEIVED

APR 03 1985

DIVISION OF OIL  
GAS & MINING

April 2, 1985

State of Utah  
Natural Resources  
Oil, Gas and Mining  
4241 State Office Building  
Salt Lake City, Utah 84114  
ATTN: Claudia Jones

Gentlemen:

RE: Bug 1,2,6,10,12, and 25

To follow up our telephone conversation, enclosed please find copies of well completion reports, on the Bug wells listed above.

Those wells are operated by Wexpro Company for Celsius Energy Company, all reporting will be completed by Wexpro Company for Celsius Energy Company.

If you have any further questions please call me at 530-2813.

Sincerely,

Mike Butcher  
Revenue Accounting Supervisor

MB:sh  
enclosures



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPL  
(Other instructions  
verse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

SGW

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR  
Celsius Energy Company

3. ADDRESS OF OPERATOR  
P. O. Box 458, Rock Springs, Wyoming 82902

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

14. PERMIT NO.  
43-037-30499

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
KB 6586.70' GR 6573'

RECEIVED  
FEB 17 1987

DIVISION OF  
OIL, GAS & MINING

NE SE 2400' FSL, 407' FEL

5. LEASE DESIGNATION AND SERIAL NO  
W-40052

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
022009

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Bug

9. WELL NO.  
1

10. FIELD AND POOL, OR WILDCAT  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
12-36S-25E, SLB&M

12. COUNTY OR PARISH  
San Juan

13. STATE  
Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐ PULL OR ALTER CASING ☐  
FRACTURE TREAT ☐ MULTIPLE COMPLETE ☐  
SHOOT OR ACIDIZE ☐ ABANDON\* ☒  
REPAIR WELL ☐ CHANGE PLANS ☐  
(Other) ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐ REPAIRING WELL ☐  
FRACTURE TREATMENT ☐ ALTERING CASING ☐  
SHOOTING OR ACIDIZING ☐ ABANDONMENT\* ☐  
(Other) ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATION: (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) \*

Per the phone conversation with Greg Noble of the Moab BLM Office on 7/14/86. Celsius Energy requests to plug the above captioned well in the following manner:

1. Set a cast iron bridge plug at 6270' KBM (just above the Desert Creek perforations). Dump 5 sacks of cement on the plug (11 ppg mud will be between the plugs).
2. Perforate at 667' KBM (50' below the shoe of the surface casing). Set a retainer at 567' KBM and pressure test. Circulate cement to surface between the 9-5/8" - 5-1/2" annulus.
3. Set a 50' cement plug at surface.
4. Install a Dry Hole Marker.
5. Notify BLM Officials 48 hours prior to plugging.
6. Reclamation orders are requested and will be carried out when plugging is completed.

18. I hereby certify that the foregoing is true and correct

SIGNED Thomas A. Pett

TITLE Director Pet. Eng.

DATE 2-12-87

(This space for Federal or State office use)

APPROVED BY  
CONDITIONS OF APPROVAL, IF ANY:

TITLE

ACCEPTED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE: 2-18-87

BY: John R. Baya

Federal approval of this action  
is required before commencing  
operations.

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions  
verse side)

Budget Bureau No. 1004-0135  
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. W-40052
2. NAME OF OPERATOR Celsius Energy Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME 060947 SGW
3. ADDRESS OF OPERATOR P. O. Box 458, Rock Springs, Wyoming 82902		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface NE SE 2400' FSL, 407' FEL		8. FARM OR LEASE NAME Bug
14. PERMIT NO. 43-037-30499		9. WELL NO. 1
15. ELEVATIONS (Show whether DF, RT, GR, etc.) KB 6586.7' GR 6573'		10. FIELD AND POOL, OR WILDCAT Wildcat
		11. SEC., T., R., M., OR BLK. AND SURVEY OR ARRA 12-36S-25E SLB&M
		12. COUNTY OR PARISH 13. STATE San Juan Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

The above captioned well was plugged on 5-19-87. The well was plugged in compliance with the plugging orders which were given by Greg Noble of the Moab BLM office.

1. Perforations in the Desert Creek Formations were at 6289-6293'. A cast iron bridge plug was set at 6270' KBM and pressure tested to 2500 psi. 5 sacks of cement was dumped on the bridge plug (11.3 ppg mud was displaced in the hole prior to setting the bridge plug).
2. The well was perforated at 667' (50' below the surface pipe) and circulation established.
3. A retainer was set at 652' KBM and cement was squeezed to surface between the 9-5/8" X 5-1/2" annulus.
4. The casing head was removed and a 50' plug of cement set inside the 5-1/2" casing.
5. A regulation dry hole marker was installed.
6. Reclamation of the location will follow.

ACCEPTED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE 6-4-87  
BY: John R. Bay

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE Director Pet. Eng.

DATE 6-4-87

(This space for Federal or State office use)

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED  
JUN 08 1987

\*See Instructions on Reverse Side

DIVISION OF  
OIL, GAS & MINING

4301530174  
 Amoco #5, NENE 34-17S-11E 5-10-91  
 4303731453  
 Inude 2-17, SESW 17-31S-23E 5-13-91  
 4303731465  
 COG C 1-35-36-21, NWSW 35-36S-24E 5-13-91  
 4303731340  
 Recapture 29-34, SWSE 29-36S-28E 5-13-91  
 4303730499  
 Bug 1, NESE 12-36S-25E 5-13-91  
 4303731184  
 Cedar Point F-13-126, NWSW 12-36S-25E 5-13-91  
 4303730735  
 Bug 25, NENE 18-36S-26E 5-10-91  
 4303731322  
 Jina 1, NESE 13-37S-23E 5-13-91  
 4303731388  
 Marathan 1-5, NUNE 5-37S-24E 5-13-91

JLT List from BLM showing final  
abandonment notice dates.

DTS

5-28-91